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(54) Title: PHAGE-DISPLAY PLANT DEFENSE PEPTIDES DIRECTED AGAINST PHAKOPSORA PACHYRHIZI AND UROMYCES APPENDICULATUS

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MREPSIFTAV LFAASSALAA PUNTTTDEDT AQIPADAVIG YSDLEGDFDV
AVLEFNSGTN NGLLEFNITL ASIAAKBEQV SLEKRLAAGT PALGDDRGRF
WPAFLAALAL DGLRRTDSNA TAAASTDFGN ITSALPAAVL YPSTGDLVAL
LSAANSTPGW PYTTAFRGRG HSLMGQAFAP GGVVVMASL GDAAAPPRIN
VSADGRYVDA GGEQVWIDVL RASLARGVAP RSWNDYLYLT VGOTLSNAGI
SQQAFRHGPO ISNVLEMDVI TGHGEMVICS KQLNADLFDA VLGGLGQPGV
ITRARIAVEP APARARWRF VYTDFAAFSA DQERLTAPRF GGGASFGFM
SYVEGSVFN QSLATLANT GFTDADVAR IVALAGERNA TTVYSIEATL
NXDNATAAAA AVDQELASVL GTLSYVEGFA FQDVAYAAF LDRVHGEEVA
LNKLGWRVP HPWLNMFVPR SRLADFDRGV FKGILQCTDI VGPLIVYPLN
KSMWDDGMSA ATRSEDVFA VLLFSSVAP NDLARLQEQN RRILRFCDLA
GIQYKTYLAR HTDRSDWVRH FGAAKWNRFP EMKKNYDFKR LLSFGQDIFN
KLADRPMSFP F

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FIG. 7

(57) Abstract: A method for the identification of peptides having an affinity for the surface of fungi is provided as is a method for the identification of peptides capable of affecting the development of a fungus. Also provided are compositions comprising peptides identified using the method of the present invention. In addition, isolated polynucleotides, vectors, expression cassettes and transformed cells capable of expressing peptides identified by the method of the present invention are provided.

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INTERNATIONAL SEARCH REPORT

International application No.:

PCT/US06/30291

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G01N 33/53(2006.01)  
C12Q 1/70(2006.01)

USPC: 435/7.31, 7.2, 7.1, 6, 4; 530/300, 350

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 435/7.31, 7.2, 7.1, 6, 4; 530/300, 350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
West, Cas

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 20010029024, (KODADEK et al) 11 October 2001(11.10.01), entire document.	1-6
Y	Gough, K.C., Selection of phage antibodies to surface epitopes of <i>Phytophthora infestans</i> , journal of Immunological Methods, 1999, Vol. 228, pages 97-108, especially page 98.	1-6
Y	US 6,235,974 (QU1 et al) 22 May 2001 (02.05.01), entire document.	6
Y	Petrenko, V.A., A library of organic landscapes on filamentous phage, Protein Engineering, 1996, Vol.9, No. 9, pages 797-801, especially, page 707.	1-6

Further documents are listed in the continuation of Box C.

See patent family annex.

Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/30291

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of:

a. type of material

a sequence listing

table(s) related to the sequence listing

b. format of material

on paper

in electronic form

c. time of filing/furnishing

contained in the international application as filed

filed together with the international application in electronic form

furnished subsequently to this Authority for the purposes of search

2.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US06/30291

**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
- 2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
- 3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:  
Please see the lack of unity (PTO 0260 mailed on 6/24/08).

- 1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  - 2.  As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
  - 3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
  - 4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-6
- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
  - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
  - No protest accompanied the payment of additional search fees.